

REMARKS

In the Final Office Action mailed September 10, 2007, the Examiner rejected claims 1-32. No claims are amended by the present Response. In view of following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Claim Rejections under Doctrine of Obviousness-Type Double Patenting

In the Office Action, the Examiner rejected claims 1-32 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 7,035,159 (hereinafter referred to as “the Janzen reference”). Further, the Examiner provisionally rejected claims 1-32 as being unpatentable over claims 1-30 of copending Application No. 10/816,241 (hereinafter referred to as “the ‘241 application”). Although Applicants do not necessarily agree with the Examiner’s assertion, Applicants are amenable to filing a terminal disclaimer upon allowance of the claims in the present application. Any such filing will, of course, be affected by any restrictions or election requirements made by the Examiner during the course of prosecution and any amendments made to the present claims. Accordingly, Applicants respectfully request that the Examiner hold in abeyance the double-patenting rejection until the present claims are determined to be allowable.

Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-5 and 21-24 under 35 U.S.C. § 103(a) as being unpatentable over Trick (U.S. Patent No. 5,995,405, hereafter referred to as “Trick”) in view of Abrahams et al. (U.S. Publication No. 2004/0078454, hereafter referred to as “Abrahams”) and

further in view of Nerl (U.S. Publication No. 2002/0016897, hereafter referred to as “Nerl”); rejected claims 7-11 and 25-32 under 35 U.S.C. § 103(a) as being unpatentable over Trick in view of Abrahams; rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Trick in view of Abrahams in view of Nerl and further in view of Wu (U.S. Patent No. 7,064,994, hereafter referred to as “Wu”); rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Trick in view of Abrahams and further in view of Wu; and rejected claims 13-20 under 35 U.S.C. § 103(a) as being unpatentable over Abrahams reference in view of Nerl. Applicants respectfully traverse these rejections.

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

Summary of Applicants' Arguments and Remarks Regarding Examiner's "Response to Arguments" Section of the Office Action

Applicants thank the Examiner for further elaborating on the reasons for rejecting claims 1-32. While the Examiner has clarified his position, Applicants continue to believe that the present invention is distinguishable from the cited references, and is therefore not obvious over the prior art. With the following summary, Applicants hope to clarify the previous arguments in the hope that an appeal to the Board of Patent Appeals can be avoided. Following the summary, the Examiner's rejections are individually addressed.

First, it should be noted that Applicants have, throughout the prosecution history, made a distinction between the terms "device-type specific," "device specific," and "manufacturing lot specific." The term "device-type specific" refers to information relevant to a particular type of device. By way of analogy, this could be thought of as being similar to a manufacturer's specification of gas mileage for a type of automobile. The term "device specific" refers to performance information relevant to an individual device. Again, by way of analogy, this can be thought of as similar to the specific gas mileage that a driver could measure for his particular automobile, which may be different from the manufacturer specifications. The term "manufacturing lot specific" refers to information relevant to a particular group of devices which have been manufactured in a lot, and then individually tested.

Another term that has been used throughout prosecution to distinguish the present invention from the prior art is the term “Industry Standard values.” The term “Industry Standard values” refers to performance values that are *device-type specific*. For manufacturers, Industry Standard values represent performance requirements that a device-type must meet *or exceed* in order to ensure acceptable performance of the device. For device users, Industry Standard values represent design constraints within which the user must operate the device to ensure proper device performance. For example, given an Industry Standard operating current, the device manufacturer must ensure that the device can handle at least that much current *or more*. On the other hand, when the device is put into operation, the user must ensure that the device operates at the Industry Standard operating current *or less*. The user must stay within the Industry Standard operating current because the user does not know what current that specific device can really handle, but does know that, at the very least, the manufacturer must have made the device capable of operating up to the operating current specified by the Industry Standard values. If the user knew what the specific device could really handle, he could operate the device at that higher operating current rather than relying on the worst-case Industry Standard values.

Typically, Industry Standard operating current values are stored on the SPD of an IMM. A computer can then use the value to ensure that the memory device will not operate at an operating current greater than the Industry Standard value, which, as stated above, may be less than what the device can really handle (i.e., worst-case values). In contrast, embodiments of the present invention are directed to utilizing *lot specific* or *device specific* operating current values of volatile memory devices, rather than the Industry Standard operating current values. By

measuring each device and storing device specific values or lot specific values, rather than relying on worst-case device-type characterizations, as in the prior art, operation of the devices may be optimized by utilizing the device-specific values to configure the system to maximize the operating potential of the specific device.

To further illustrate the point, consider an IMM with eight memory devices (1-8). According to embodiments of the present invention, the operating current for memory device 1 is measured and the result is stored on the SPD and associated with memory device 1 only. Then memory device 2 is measured and that result is stored on the SPD and associated with memory device 2 only. This process is repeated for all eight memory devices on the IMM, so that, in the end, the SPD has different device-specific operating currents for each memory device according to what the device can really handle, and each operating current can be different even though all of the memory devices are of the same device-type. Neither Trick nor Abrahams discloses storing *device-specific* information as claimed in the present invention.

With regard to the Trick reference, Applicants have continued to argue that Trick does not teach storing device-specific or lot-specific operating current values. The Examiner disagrees, stating in the office action that “Trick indicates that the other 128 bytes are reserved for either manufacturer or purchaser of IMM (lines 49-53 of column 1). Therefore, the information/values stored thereon uniquely corresponds to the lot of IMM.” Applicants respectfully disagree. First, it should be clarified that the term “lot,” as used in the specification of the present invention, refers to a manufacturing lot of memory devices that can then be

installed on an IMM. The term “lot” does not refer to a manufacturing lot of IMM, or a group of memory devices on an IMM. With that in mind, although Trick does teach that “128 bytes are usually reserved for use by either the manufacturer or the purchaser of the IMM,” it does not follow that the information stored thereon uniquely corresponds to the individual memory devices on the IMM. Nor does it follow that the information stored thereon uniquely corresponds to a manufacturing lot of memory devices. Moreover, Trick in no way suggests the storage of *operating currents* specific to the individual memory devices on the IMM. In fact, Trick would appear to teach away from the present invention because Trick teaches the use of Industry Standard information, whereas the present invention makes Industry Standard information irrelevant insofar as it pertains to operating current.

What Trick *does* teach is the reservation of *empty memory space* on the EEPROM of an IMM. If the present rejection is valid, then it is conceivable that any novel use of computer memory could be anticipated by a reference that recites unused computer memory; the argument being that the unused memory space could have been used in the way that is being claimed. This is clearly erroneous.

Regarding the Abrahams reference, Applicants have continued to argue that Abrahams also does not teach storing device specific or lot specific operating current values. The Examiner disagrees, stating in the office action that “Abrahams mention about reading operating current values from non-volatile memory of the component. Therefore, with the teaching of Abrahams, the values stored in non-volatile memory of Trick, which uniquely corresponds to a lot where

volatile memory devices were manufactured, can be operating current values.” Applicants respectfully disagree. The Examiner’s argument fails to acknowledge the difference between Industry Standard operating current values, which are only *device-type* specific, and the operating current values used in the present invention which are *device* specific or *manufacturing lot* specific (i.e., uniquely corresponding to the specific device being employed or uniquely corresponding to the lot in which the specific device was manufactured). While Abrahams does teach the use of operating current values, Abrahams does not teach the use of *device-specific* operating current values, i.e., operating current values that have been measured for and pertain to only one particular memory device.

The Examiner could not find support in Abrahams for Applicants’ contention that the operating currents of Abrahams are nothing more than Industry Standard operating currents. However, paragraph 23 states “[t]he operational parameters may be specific to each *type* of component.” This lends support to Applicant’s argument that the operating current values used in Abrahams are Industry Standard values because the Industry Standard values are typically used to characterize *types* of components (e.g., DRAM). Even if the operational parameters of Abraham’s can be construed to be something other than Industry Standard values, the important point is that they are *device-type* specific.

Even more importantly, nothing in Abrahams suggests that the operational parameters are *device* specific as opposed to *device-type* specific. The Examiner agrees that “Abrahams does not mention how the operating values are determined,” but the Examiner then states that

Applicants' arguments "do not preclude the values to be measured." Applicants object to this line of reasoning because although an invention can be obvious over subject matter that is disclosed in prior art, it cannot be obvious over subject matter that is not precluded because it is never mentioned at all. By stating that Abrahams does not preclude the operating values to be measured, the Examiner has effectively read subject matter into the Abrahams reference that is not there.

In the hope of furthering examination of the present application, Applicants also wish to draw the Examiner's attention to U.S. Patent Nos. 7,035,159, 7,251,181, 7,120,065 and U.S. Patent Application Nos. 11/338,155 and 11/211,940. All of the above patents and applications relate to the concept of using device-specific or manufacturing-lot specific operating current values to optimize performance of memory devices. The claims in both applications cited above have been allowed. Of particular interest is Application 11/338,155 (hereinafter referred to as the '155 application).

Independent claim 15 of the '155 application recites, in part, a method comprising "storing a plurality of measured operating current values in a non-volatile memory device of a memory module, wherein the plurality of operating current values correspond to operating current values measured for each of a plurality of memory devices of the memory module."

In an office action mailed January 31, 2007, the Examiner rejected claims 15-20 of the ‘155 application as obvious over Trick, in view of Abrahams. Specifically, the Examiner stated:

Trick discloses storing operating information in a non-volatile memory device of a module having a plurality of memory devices Trick does not teach the plurality of operating current values measured for each of a plurality of memory device of the module. However, Abrahams et al. discloses the use of a non-volatile memory device for storing a plurality of measured operating current values for each of a plurality of memory devices.

(citations omitted)

In response to the January 31, 2007 Office Action regarding the ‘155 application, applicants argued, *inter alia*, the following:

In stark contrast to the subject matter recited in claim 15, the Abrahams reference merely discloses storing operational parameters that are specific to a particular *type* of device and not to device-specific values that are measured for that particular device being utilized in the system. For example, Abrahams provides that “[t]he operational parameters may be *specific to each type of component*. For example, disk drives may have different operational parameters than array controllers.” Abrahams, p. 2, ¶ 23. Emphasis added. Accordingly, Abrahams teaches utilizing parameters specific to a particular type of component and not to a particular device that is being employed.

Following the above response, the Examiner of the ‘155 application withdrew his previous rejection of claims 15-20, and the claims were subsequently allowed. In light of the similarity of the claimed subject matter, Applicants believe that that the claims of the present invention are also in condition for allowance. Applicants also believe that the above-cited prosecution history of the related ‘155 application presents strong evidence that the Trick and Abrahams references do not alone or in combination disclose the claimed subject matter.

Applicants maintain that there is a clear distinction in the various embodiments of Applicants' invention and the cited references. In the hope that the above discussion has further clarified Applicants' position regarding the pending claims, Applicants solicit the Examiner for any suggestions that might be mutually beneficial in achieving the goal of examination and allowance of the presently recited subject matter.

Claims 1-5 and 21-24 Are Not Obvious Over Trick in View of Abrahams and Nerl

Computer device manufacturers design memory devices to operate within a predetermined temperature range. Specification, p. 2, ll. 19-20. Given that the memory devices in a computer system employ electric current to perform their intended functions, the amount of heat in the device is a function of the flow of current through the device. Specification, p. 3, ll. 4-7. Accordingly, memory devices are typically accompanied by data sheets specifying operating currents for the devices in various modes and conditions. Specification, p. 3, ll. 21-23. These data sheets correspond to a given type of memory chip and represent the worst case scenario for that particular type of device. Specification, p. 4, ll. 7-9. Any given memory device can often operate at currents 15-40% outside of the data sheet values. Specification, p. 3, ll. 10-12. Therefore, by implementing the data sheet values, the full extent of the device's capabilities are not being exploited. Specification, p. 3, ll. 12-14.

Accordingly, independent claims 1 and 21 of the present application recite the utilization of "operating currents *uniquely* corresponding to a *lot* in which the [plurality of] volatile memory devices were manufactured," rather than the general device-specific operating currents that are

typically listed on data sheets. (Emphasis added.) By implementing the lot-specific operating current values, claims 1 and 21 provide a more accurate technique than the typical data sheet-based methods. Specification, p. 12, ll. 24-25, p. 13, l. 1. Consequently, the method of claim 1 and the memory module of claim 21 result in a more efficient use of the specific memory device's capabilities.

Applicants respectfully submit that neither Trick, Abrahams, nor Nerl, alone or in combination, disclose each and every feature of independent claims 1 and 21. Specifically, none of the aforementioned references teaches utilizing operating currents *uniquely* corresponding to a *lot* in which the memory devices were manufactured, as recited in claims 1 and 21.

Regarding Trick, the Examiner asserted that Trick teaches utilizing operating parameters uniquely corresponding to a lot in which the volatile memory devices were manufactured. Office Action, p. 4. Specifically, the Examiner asserted that the electrically erasable programmable ROM (EEPROM) disclosed in Trick is associated with In Line Memory Modules (IMMs) and, therefore, identifies the lot of memory devices. *Id.* Applicants respectfully disagree and respectfully submit that Trick does not teach operating parameters uniquely corresponding to a lot in which the volatile memory devices were manufactured, as asserted by the Examiner.

Rather, Trick discloses a mechanism for adapting an IMM so that it may be configured to accommodate a standard EEPROM or a “daisy chain” EEPROM. Trick, col. 2, ll. 21-25. Trick is not concerned with improving the accuracy of determining operating parameters of memory devices, specifically the operating current, as in the present application. Indeed, Trick discloses in general terms the functions of the EEPROM, but does not discuss the operating parameters of the IMM. Trick, col. 1, ll. 43-56. To the extent that Trick discloses that configuration information is stored on the EEPROM, Trick fails to teach that the configuration information is lot-specific configuration information. *See id.* at col. 1, ll. 31-34. Therefore, Trick does not disclose the utilization of “operating currents uniquely corresponding to a lot in which the [plurality of] volatile memory devices were manufactured,” as recited by independent claims 1 and 21.

Further, Applicants assert that the Examiner’s attempt to remedy the deficiencies of Trick by citing Abrahams is insufficient. The Examiner merely relied on Abrahams for its alleged disclosure of reading operating current values from a non-volatile memory device on a memory module. Office Action, p. 5. To the extent Abrahams may disclose the reading of operating current values, nowhere does Abrahams teach or suggest that those operating current values “uniquely correspond[] to a lot in which the volatile memory devices were manufactured,” as recited in independent claims 1 and 21. For example, Abrahams provides that “[t]he operational parameters may be *specific to each type of component*. For example, disk drives may have different operational parameters than array controllers.” Abrahams, p. 2, ¶ 23 (emphasis added). Therefore, the specification in Abrahams teaches utilizing parameters specific to a particular type

of component and not lot-specific parameters. In fact, Abrahams is devoid of any mention of lot-specific parameters such as lot-specific current values. The inaccuracy and inefficiency associated with using values associated with a particular type of component is exactly the problem that implementation of the present invention is designed to eliminate. Therefore, Abrahams does not disclose the utilization of “operating currents uniquely corresponding to a lot in which the [plurality of] volatile memory devices were manufactured,” as recited in claims 1 and 21.

Applicants further assert that Nerl fails to remedy the deficiencies of either Trick or Abrahams. Indeed, the Examiner merely referred to Nerl for its alleged teaching that it is well known in the art that a DIMM can be an FRU. Office Action, p. 5. Accordingly, even if Nerl disclosed what is asserted by the Examiner, it does not remedy the deficiencies discussed above.

In view of the remarks set forth above, Applicants respectfully submit that independent claims 1 and 21 and their dependent claims are not rendered obvious by the cited combination. Accordingly, Applicants request withdrawal of the Examiner’s rejection and the allowance of claims 1-5 and 21-24.

Claims 7-11 and 25-32 Are Not Obvious Over Trick in View of Abrahams

Independent claims 7, 25, and 29 of the present application recite the utilization of “operating currents uniquely corresponding to each of the plurality of memory devices,” rather than the general device-type specific operating current currents that are typically listed on data

sheets. By implementing the operating currents specific to each unique memory device, claims 7, 25, and 29 provide a more accurate technique than the typical data sheet-based methods. Specification, p. 12, ll. 24-25, p. 13, l. 1. Consequently, the method of claim 7, the memory module of claim 25, and the computer system of claim 29 result in a more efficient use of the specific memory device's capabilities.

Applicants respectfully submit that neither Trick nor Abrahams, alone or in combination, disclose each and every feature of independent claims 7, 25, and 29. Indeed, given that the operating currents specific to each memory device recited in independent claims 7, 25, and 29 offer the same advantages as the lot-specific values utilized in independent claims 1 and 21, Applicants rely on the remarks presented above to demonstrate that neither Trick nor Abrahams teach the utilization of operating currents *uniquely* corresponding to *each* of a plurality of memory devices. Accordingly, Applicants request withdrawal of the Examiner's rejection and allowance of claims 7-11 and 25-32.

Claim 6 Is Not Obvious Over Trick in View of Abrahams, in View of Nerl and Further in view of Wu

In the rejection of dependent claim 6, the Examiner asserted that Trick in view of Abrahams, in view of Nerl and further in view of Wu discloses all of the recited features. Applicants respectfully assert that the rejection is deficient because neither the Nerl reference, nor the Wu reference, alone or in hypothetical combination, remedy the deficiencies of Trick and Abrahams. That is that neither Nerl, nor Wu obviates the deficiencies of Trick and Abrahams discussed above with reference to independent claim 1. For at least this reason, Applicants

submit that Trick, Abrahams, Nerl and Wu, alone or in combination, do not disclose each and every feature of dependent claim 6. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 6 under 35 U.S.C. § 103.

Claim 12 Is Not Obvious Over Trick in View of Abrahams, and Further in view of Wu

In the rejection of dependent claim 12, the Examiner asserted that Trick in view of Abrahams, and further in view of Wu discloses all of the recited features. Applicants respectfully assert that the rejection is deficient because the Wu reference does not remedy the deficiencies of Trick and Abrahams. That is that Wu does not obviate the deficiencies of Trick and Abrahams discussed above with reference to independent claim 7. For at least this reason, Applicants submit that Trick, Abrahams, and Wu, alone or in combination, do not disclose each and every feature of dependent claim 12. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 12 under 35 U.S.C. § 103.

Claims 13-20 Are Not Obvious Over Abrahams in View of Nerl

Rejection of Claim 13

In accordance with embodiments of the present techniques, memory devices may be individually tested such that device-specific operating current values uniquely corresponding to each memory device can be recorded and stored in a database. Specification, p. 13, ll. 20-23. In one embodiment, the operating current values in the database may be used during fabrication of a memory module wherein the database is accessed during fabrication and a non-volatile memory device may be uniquely programmed in accordance with the specific operating current values for

the particular memory devices on the memory module. Specification, p. 13, l. 13 – p. 14, l. 4.

After fabrication and programming of the non-volatile memory device, a memory module can be shipped for implementation in a system and operating current values may be accessed by the system from the non-volatile memory device such that the system can be configured to operate optimally within the capabilities of the particular memory devices. Specification, p. 14, ll. 4-9.

Accordingly, claim 13 recites a method of manufacturing a memory module comprising, *inter alia*, “measuring operating current values in each of a plurality of volatile memory devices;” and “storing each of the operating current values corresponding to each of the volatile memory devices in a non-volatile memory device.”

In the rejection of claim 13, the Examiner stated that Abrahams discloses “measuring operating current values in each of a plurality of memory devices (lines 13-15 of page 1).” Office Action, p. 13. The Examiner further stated that Abrahams discloses “storing each of the operating current values corresponding to each of the plurality of memory devices in a non-volatile memory device.” *Id.* Applicants respectfully disagree with the Examiner’s assertions regarding Abrahams.

Claim 13 recites measuring operating current values in each of a plurality of volatile memory devices and storing each of the operating current values in a non-volatile memory device. While Applicants agree that Abrahams does teach storing operational parameters in a non-volatile memory device, these operational parameters are specific to a type of component,

such as those found on a component's data sheet. Abrahams, p. 2, ¶ 22. The operational parameters that may be stored on the non-volatile memory device are not the operating current values that were measured for each of a plurality of volatile memory devices. Indeed, to the extent Abrahams discloses the measuring of operational parameters, Applicants respectfully submit that Abrahams discloses the measuring of the current operating conditions of the component. Abrahams, p. 1, ¶ 11. The current operating conditions of the component then may be compared to the operational parameters for a type of component that may be stored in the non-volatile memory. *Id.* Accordingly, Abrahams does not disclose measuring operating current values in each of a plurality of memory devices and storing each of the operating current values in a non-volatile memory device.

Applicants further assert that Nerl fails to remedy the deficiencies of Abrahams. Indeed, the Examiner merely referred to Nerl for its alleged teaching that it is well known in the art that a DIMM can be an FRU. Office Action, p. 14. Accordingly, even if Nerl disclosed what is asserted by the Examiner, it does not remedy the deficiencies discussed above.

In view of the remarks set forth above, Applicants respectfully submit that independent claim 13 and its dependent claims are not rendered obvious by the cited combination. Accordingly, Applicants request withdrawal of the Examiner's rejection and allowance of claims 13-16.

Rejection of Claim 17

Claim 17 recites, *inter alia*, “measuring operating current values in each of a plurality of volatile memory devices, wherein the plurality of volatile memory devices correspond to a single manufacturing lot; calculating average operating current values for the manufacturing lot;” and “storing the average operating current values in a non-volatile memory device.”

As discussed above with respect to the rejection of claim 13, Abrahams does not disclose measuring operating current values in each of a plurality of volatile memory devices. Indeed, to the extent Abrahams discloses the measuring of operational parameters, Applicants respectfully submit that Abrahams discloses the measuring of the current operating conditions of the component. Abrahams, p. 1, ¶ 11. Further, nowhere does Abrahams disclose that the operating current values are measured for a plurality of volatile memory devices that correspond to a single manufacturing lot. Accordingly, Abrahams does not disclose measuring operating current values in each of a plurality of volatile memory devices, wherein the plurality of memory devices correspond to a single manufacturing lot.

Moreover, in contrast to the present claims and as admitted by the Examiner, Abrahams also does not disclose “calculating *average* operating current values for the manufacturing lot” and “storing the *average* operating current values in a non-volatile memory device,” as recited by independent claim 17. *See* Office Action, p. 15. Rather, the Examiner argues that “one of ordinary skill in the art would have been motivated to store average current corresponding to the lot in the non-volatile memory depending on his design choice.” *Id.* Applicants respectfully

disagree and submit that the Examiner has not demonstrated a “convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). Indeed, as previously mentioned, Abrahams is devoid of any disclosure regarding lot-specific parameters, such as the average operating currents values for the manufacturing lot of claim 17. Rather, to the extent Abrahams discloses that operating parameters are stored in a non-volatile memory, Abrahams discloses the use of general device-specific parameters. For example, Abrahams discloses that “[t]he operational parameters may be *specific to each type of component*.” Abrahams, p. 2, ¶ 23 (emphasis added). In view of this teach of Abrahams, there is no convincing line of reasoning as to why one of ordinary skill in the art would modify Abrahams in the manner recited in independent claim 17.

Applicants further assert that Nerl fails to remedy the deficiencies of Abrahams. Indeed, the Examiner merely referred to Nerl for its alleged teaching that it is well known in the art that a DIMM can be an FRU. Office Action, p. 14. Accordingly, even if Nerl disclosed what is asserted by the Examiner, it does not remedy the deficiencies discussed above.

In view of the remarks set forth above, Applicants respectfully submit that independent claim 17 and its dependent claims are not rendered obvious by the cited combination. Accordingly, Applicants request withdrawal of the Examiner’s rejection and allowance of claims 17-20.

Authorization for Extensions of Time and Payment of Fees

Applicants do not believe that any fees are due at this time. However, if any fees, including fees for extensions of time and other reasons, are deemed necessary to advance prosecution of the present application, at this or any other time, Applicants hereby authorize the Commissioner to charge such requisite fees to Deposit Account No. 06-1315; Order No. MICS:0103/FLE/MAN (No. 02-1327). In accordance with 37 C.F.R. § 1.136, Applicants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request thereof.

Conclusion

Applicants respectfully submit that all pending claims are in condition for allowance. However, if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: November 13, 2007

/Robert A. Manware/
Robert A. Manware
Reg. No. 48,758
FLETCHER YODER
P.O. Box 692289
Houston, TX 77269-2289
(281) 970-4545